

GenCore version 5.1.6
Copyright (c) 1993 - 2004 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: March 17, 2004, 19:32:29 ; Search time 45 seconds

(without alignments)
4570.880 Million cell updates/sec

Title: US-10-018-418-4

Perfect score: 4276
Sequence: 1 MSBVAASAFALASAPG.....SWEHAKLYEDVILKRYQW 799

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1045404 seqs, 257433775 residues

Total number of hits satisfying chosen parameters: 1045404

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

1: /cgnt_6/ptodata/1/pubppa/US07_PUBCOMB.pep:*
2: /cgnt_6/ptodata/1/pubppa/PCT_NEW_PUB.pep:*
3: /cgnt_6/ptodata/1/pubppa/US06_NEW_PUB.pep:*
4: /cgnt_6/ptodata/1/pubppa/US06_PUBCOMB.pep:*
5: /cgnt_6/ptodata/1/pubppa/US07_PUBCOMB.pep:*
6: /cgnt_6/ptodata/1/pubppa/PCTUS_NEW_PUB.pep:*
7: /cgnt_6/ptodata/1/pubppa/US08_NEW_PUB.pep:*
8: /cgnt_6/ptodata/1/pubppa/US08_PUBCOMB.pep:*
9: /cgnt_6/ptodata/1/pubppa/US09_PUBCOMB.pep:*
10: /cgnt_6/ptodata/1/pubppa/US09_PUBCOMB.pep:*
11: /cgnt_6/ptodata/1/pubppa/US09_NEW_PUB.pep:*
12: /cgnt_6/ptodata/1/pubppa/US10_PUBCOMB.pep:*
13: /cgnt_6/ptodata/1/pubppa/US10_PUBCOMB.pep:*
14: /cgnt_6/ptodata/1/pubppa/US10_PUBCOMB.pep:*
15: /cgnt_6/ptodata/1/pubppa/US10_PUBCOMB.pep:*
16: /cgnt_6/ptodata/1/pubppa/US10_NEW_PUB.pep:*
17: /cgnt_6/ptodata/1/pubppa/US10_NEW_PUB.pep:*
18: /cgnt_6/ptodata/1/pubppa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	4075	95.3	799	US-09-952-677-6	Sequence 6, Appli
2	2516.5	58.9	641	US-10-272-291-8	Sequence 8, Appli
3	2380.5	55.7	694	US-10-389-566-797	Sequence 797, App
4	2365.5	55.3	694	US-10-389-566-1213	Sequence 1213, Ap
5	2163	50.6	801	US-10-044-543-26	Sequence 26, Appli
6	2161.5	50.5	535	US-10-425-114-43176	Sequence 43176, A
7	2161.5	50.5	771	US-10-425-114-43176	Sequence 20556, A
8	2150.5	50.3	767	US-10-284-668-8	Sequence 8, Appli
9	2069.5	48.4	477	US-10-272-291-7	Sequence 7, Appli
10	2063	48.2	690	US-10-044-543-6	Sequence 6, Appli
11	2059	48.2	558	US-10-284-668-6	Sequence 6, Appli
12	1933	45.2	440	US-10-425-114-38552	Sequence 6, Appli
13	1374	32.1	341	US-10-425-114-58577	Sequence 58577, A
14	1176	27.5	641	US-10-284-668-10	Sequence 10, Appli
15	1138.5	26.6	671	US-09-952-677-2	Sequence 2, Appli

16	1128	26.4	490	12	US-10-425-114-53653	Sequence 53653, A
17	1004.5	23.5	459	14 <th>US-10-284-663-4</th> <th>Sequence 4, Appli</th>	US-10-284-663-4	Sequence 4, Appli
18	950	22.2	619	12 <th>US-10-424-559-207776</th> <th>Sequence 207776, A</th>	US-10-424-559-207776	Sequence 207776, A
19	950	22.2	636	14 <th>US-10-136-075-4</th> <th>Sequence 4, Appli</th>	US-10-136-075-4	Sequence 4, Appli
20	907	21.2	616	14 <th>US-10-044-543-14</th> <th>Sequence 14, Appli</th>	US-10-044-543-14	Sequence 14, Appli
21	891.5	20.8	599	14 <th>US-10-136-075-5</th> <th>Sequence 5, Appli</th>	US-10-136-075-5	Sequence 5, Appli
22	885	20.7	615	14 <th>US-10-044-543-2</th> <th>Sequence 2, Appli</th>	US-10-044-543-2	Sequence 2, Appli
23	869	20.3	600	14 <th>US-10-272-291-3</th> <th>Sequence 3, Appli</th>	US-10-272-291-3	Sequence 3, Appli
24	869	20.3	605	14 <th>US-10-272-291-6</th> <th>Sequence 6, Appli</th>	US-10-272-291-6	Sequence 6, Appli
25	869	20.3	606	14 <th>US-10-228-063-8</th> <th>Sequence 8, Appli</th>	US-10-228-063-8	Sequence 8, Appli
26	868	20.3	269	12 <th>US-10-425-114-51909</th> <th>Sequence 51909, A</th>	US-10-425-114-51909	Sequence 51909, A
27	867	20.3	600	14 <th>US-10-044-543-22</th> <th>Sequence 22, Appli</th>	US-10-044-543-22	Sequence 22, Appli
28	865	20.2	609	14 <th>US-10-136-075-2</th> <th>Sequence 2, Appli</th>	US-10-136-075-2	Sequence 2, Appli
29	863	20.2	600	14 <th>US-10-136-075-2</th> <th>Sequence 4, Appli</th>	US-10-136-075-2	Sequence 4, Appli
30	862	20.2	609	12 <th>US-10-425-114-52803</th> <th>Sequence 52803, A</th>	US-10-425-114-52803	Sequence 52803, A
31	844	19.7	361	12 <th>US-10-424-559-216147</th> <th>Sequence 216147, A</th>	US-10-424-559-216147	Sequence 216147, A
32	841	19.7	614	14 <th>US-10-044-543-18</th> <th>Sequence 18, Appli</th>	US-10-044-543-18	Sequence 18, Appli
33	781.5	18.3	237	12 <th>US-10-425-114-39536</th> <th>Sequence 39536, A</th>	US-10-425-114-39536	Sequence 39536, A
34	781.5	18.3	303	12 <th>US-10-425-114-59569</th> <th>Sequence 69569, A</th>	US-10-425-114-59569	Sequence 69569, A
35	770	18.0	466	15 <th>US-10-369-493-2979</th> <th>Sequence 2979, Ap</th>	US-10-369-493-2979	Sequence 2979, Ap
36	758	17.7	461	15 <th>US-10-369-493-20916</th> <th>Sequence 20916, A</th>	US-10-369-493-20916	Sequence 20916, A
37	718.5	16.8	483	15 <th>US-10-369-493-4757</th> <th>Sequence 4757, Ap</th>	US-10-369-493-4757	Sequence 4757, Ap
38	718.5	16.8	483	15 <th>US-10-369-493-7516</th> <th>Sequence 7516, Ap</th>	US-10-369-493-7516	Sequence 7516, Ap
39	717	16.8	483	15 <th>US-10-369-493-18358</th> <th>Sequence 18358, A</th>	US-10-369-493-18358	Sequence 18358, A
40	713.5	16.7	484	15 <th>US-10-369-493-23266</th> <th>Sequence 23266, A</th>	US-10-369-493-23266	Sequence 23266, A
41	712	16.7	476	15 <th>US-10-369-493-16676</th> <th>Sequence 16676, A</th>	US-10-369-493-16676	Sequence 16676, A
42	691.5	16.2	466	15 <th>US-10-369-493-3895</th> <th>Sequence 3895, Ap</th>	US-10-369-493-3895	Sequence 3895, Ap
43	690	16.1	174	12 <th>US-10-424-559-202562</th> <th>Sequence 202562, A</th>	US-10-424-559-202562	Sequence 202562, A
44	686.5	16.1	465	15 <th>US-10-369-493-19030</th> <th>Sequence 19030, A</th>	US-10-369-493-19030	Sequence 19030, A
45	686	16.0	459	15 <th>US-10-369-493-19180</th> <th>Sequence 19180, A</th>	US-10-369-493-19180	Sequence 19180, A

ALIGNMENTS

RESULT 1
US-09-952-677-6
Sequence 6, Application US/09952677
Patent No. US20020138876A1
GENERAL INFORMATION:

APPLICANT: Block, Martina

Lott, Horst

Luticke, Stephanie

Walter, Lennart

Frohberg, Claus

Kosemann, Jens

TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING ENZYMES

FROM WHEAT WHICH ARE INVOLVED IN STARCH

SYNTHESIS

NUMBER OF SEQUENCES: 9

CORRESPONDENCE ADDRESS:

ADDRESSEE: James F. Haley, Jr., c/o Fish & Neave

STREET: 1251 Avenue of the Americas

CITY: New York

STATE: New York

COUNTRY: United States of America

ZIP: 10020

COMPUTER READABLE FORM:

MEDIUM TYPE: floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/952,677

FILING DATE: 14-Sep-2001

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 09/196,390

FILING DATE: 19-No. US2002013896A1-1998

APPLICATION NUMBER: DE 196 21 588.9

FILING DATE: 29-MAY-1996

APPLICATION NUMBER: DE 196 36 917.7

FILING DATE: 11-SEP-1996

APPLICATION NUMBER: PCT/EP97/02793

Mon Mar 22 09:26:54 2004

us-10-018-418-4.rapb

Page 2

FILING DATE: 28-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: Haley, Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: AGRVCO-9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 596-9000
TELEFAX: (212) 596-9090
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 799 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-09-952-677-6

Query Match 95.3%; Score 4075; DB 9; Length 799;
Best Local Similarity 95.6%; Pred. No. 3,2e-312;
Matches 764; Conservative 7; Mismatches 28; Indels 0; Gaps 0;

QY 1 MSSAVASASFLALASAPGSRPRARVAPPPHAGRLWPPMPORARAGVAAAR 60
DB 1 MSSAVASASFLALASAPGSRPRARVAPPPHAGRLWPPMPORARAGVAAAR 60
QY 61 ACKKQARVDDDAASAROPRARGAATYVAERDPVKTLDRAEGGAPAPAPRODAAR 120
DB 61 ACKKQAGIDDAASAROPRARGAATYVAERDPVKTLDRAEGGAPAPAPRODAAR 120
QY 121 PPSNMGTPVNGENKSTGGGATKDSGLPAPARAPHSPTONRVPVNGENKANVASPPTSLA 180
DB 121 PPSNMGTPVNGENKSTGGGATKDSGLPAPARAPHSPTONRVPVNGENKANVASPPTSLA 180
QY 121 PPSNMGTPVNGENKSTGGGATKDSGLPAPARAPHSPTONRVPVNGENKANVASPPTSLA 180
DB 121 PPSNMGTPVNGENKSTGGGATKDSGLPAPARAPHSPTONRVPVNGENKANVASPPTSLA 180
QY 181 EVVADSDAATTSISDXAPEVVPAPKPPSSGSGNFVVSASAPRLDIDSDVEPELKQAVI 240
DB 181 EVVADSDAATTSISDXAPEVVPAPKPPSSGSGNFVVSASAPRLDIDSDVEPELKQAVI 240
QY 181 EVVADSDAATTSISDXAPEVVPAPKPPSSGSGNFVVSASAPRLDIDSDVEPELKQAVI 240
DB 181 EVVADSDAATTSISDXAPEVVPAPKPPSSGSGNFVVSASAPRLDIDSDVEPELKQAVI 240
QY 241 VEAENPAPKALSPAPPAVOEDLMDFKYTGFEPEPEAKDDMAVADAGSFEHNONDSG 300
DB 241 VEAENPAPKALSPAPPAVOEDLMDFKYTGFEPEPEAKDDMAVADAGSFEHNONDSG 300
QY 301 PLAGENMNVVVAABECSPWCKTGLGVAAGALPKALAKRGHVVVVPRYGYEAYDV 360
DB 301 PLAGENMNVVVAABECSPWCKTGLGVAAGALPKALAKRGHVVVVPRYGYEAYDV 360
QY 361 GVRKYKKAAGOMENYFHAAYIDGDFYIDAPLFRHROEDYIGSSROEIMKMLIFCKA 420
DB 361 GVRKYKKAAGOMENYFHAAYIDGDFYIDAPLFRHROEDYIGSSROEIMKMLIFCKA 420
QY 421 AVEVPMHVPCCGVPGYDGNLVFIANDMTALLPYLKAAYRDHLMQYTESIMVTHIAH 480
DB 421 AVEVPMHVPCCGVPGYDGNLVFIANDMTALLPYLKAAYRDHLMQYTESIMVTHIAH 480
QY 481 OGRGAPDEPPEFTELEHLEHRLYDPVGGHANYFAAGLQADQVAVVPGYLMELXTV 540
DB 481 OGRGAPDEPPEFTELEHLEHRLYDPVGGHANYFAAGLQADQVAVVPGYLMELXTV 540
QY 541 EGGWGLHDIIRONDVKTRGIYVGINNMENPEVDVHLKSDGYTFPSIGTLDGGRQCKEA 600
DB 541 EGGWGLHDIIRONDVKTRGIYVGINNMENPEVDVHLKSDGYTFPSIGTLDGGRQCKEA 600
QY 601 LORELGLQVRADVPLLGFIQRLDQKQVEIITADAMPWISQDVOLVNLGTRHDLBSMLR 660
DB 601 LORELGLQVRADVPLLGFIQRLDQKQVEIITADAMPWISQDVOLVNLGTRHDLBSMLR 660
QY 661 HERREHNDKRWGWSRVLARITAGDALLMPSRPPCGNLQYLAAGTVPVYHAYG 720
DB 661 HERREHNDKRWGWSRVLARITAGDALLMPSRPPCGNLQYLAAGTVPVYHAYG 720
QY 721 GVRDTPFPDPFNHSGLQWTFDRAEAKLIEALGHCLATYRDYVESRGLQERMSQDS 780
DB 721 GVRDTPFPDPFNHSGLQWTFDRAEAKLIEALGHCLATYRDYVESRGLQERMSQDS 780

QY 781 WEHAAKLYEDVLKAYQW 799
DB 781 WEHAAKLYEDVLKAYQW 799

RESULT 2
US-10-272-291-8
Sequence 8, Application US/10272291
Publication No. US20030150023A1
GENERAL INFORMATION:
APPLICANT: Exseed Genetics
TITLE OF INVENTION: Starch
FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/272,291
PRIOR APPLICATION NUMBER: 60/329,525
PRIOR FILING DATE: 2002-10-17
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 8
LENGTH: 641
TYPE: PRT
ORGANISM: Zea mays
FEATURES:
OTHER INFORMATION: Starch Synthase IIA (SsIIa)
US-10-272-291-8

Query Match 58.9%; Score 2516.5; DB 14; Length 641;
Best Local Similarity 66.2%; Pred. No. 1.7e-189;
Matches 493; Conservative 54; Mismatches 93; Indels 105; Gaps 8;

QY 56 VAAABAKKQARVDDDAASAROPRARGAATYVAERDPVKTLDRAEGGAPAPAPRODAAR 115
DB 1 VAAABAKKQARVDDDAASAROPRARGAATYVAERDPVKTLDRAEGGAPAPAPRODAAR 115
QY 116 QDAPRPPSNGTPVNGENKSTGGGATKDSGLPAPARAPHSPTONRVPVNGENKANVASP 175
DB 116 QDAPRPPSNGTPVNGENKSTGGGATKDSGLPAPARAPHSPTONRVPVNGENKANVASP 175
QY 176 PTSLAEVAPDSATTSISDXAPEVVPAPKPPSSGSGNFVVSASAPRLDIDSDVEPELKQAVI 235
DB 176 PTSLAEVAPDSATTSISDXAPEVVPAPKPPSSGSGNFVVSASAPRLDIDSDVEPELKQAVI 235
QY 236 KQAVIYEAAPKALSPAPPAVOEDLMDFKYTGFEPEPEAKDDMAVADAGSFEHNONDSG 294
DB 236 KQAVIYEAAPKALSPAPPAVOEDLMDFKYTGFEPEPEAKDDMAVADAGSFEHNONDSG 294
QY 295 QNHDSGLAGENMNVVVAABECSPWCKTGLGVAAGALPKALAKRGHVVVVPRYGYEAYDV 354
DB 295 QNHDSGLAGENMNVVVAABECSPWCKTGLGVAAGALPKALAKRGHVVVVPRYGYEAYDV 354
QY 355 EBAVDGVRKYKKAAGOMENYFHAAYIDGDFYIDAPLFRHROEDYIGSSROEIMKMLIFCKA 414
DB 355 EBAVDGVRKYKKAAGOMENYFHAAYIDGDFYIDAPLFRHROEDYIGSSROEIMKMLIFCKA 414
QY 415 ILFCQAAVEVPMHVPCCGVPGYDGNLVFIANDMTALLPYLKAAYRDHLMQYTESIMVTHIAH 474
DB 415 ILFCQAAVEVPMHVPCCGVPGYDGNLVFIANDMTALLPYLKAAYRDHLMQYTESIMVTHIAH 474
QY 475 IHNIAHOGRGVDEPPEFTELEHLEHRLYDPVGGHANYFAAGLQADQVAVVPGYLMELXTV 534
DB 475 IHNIAHOGRGVDEPPEFTELEHLEHRLYDPVGGHANYFAAGLQADQVAVVPGYLMELXTV 534
QY 535 MELKTVEGGMGLHDIIRONDVKTRGIYVGINNMENPEVDVHLKSDGYTFPSIGTLDGGRQCKEA 594
DB 535 MELKTVEGGMGLHDIIRONDVKTRGIYVGINNMENPEVDVHLKSDGYTFPSIGTLDGGRQCKEA 594
QY 595 ROCCEBALOREIGLOVRADVPLLGFIQRLDQKQVEIITADAMPWISQDVOLVNLGTRHDLBSMLR 654
DB 595 ROCCEBALOREIGLOVRADVPLLGFIQRLDQKQVEIITADAMPWISQDVOLVNLGTRHDLBSMLR 654
QY 655 LESMLRHERREHNDKRWGWSRVLARITAGDALLMPSRPPCGNLQYLAAGTVPVYHAYG 714
DB 655 LESMLRHERREHNDKRWGWSRVLARITAGDALLMPSRPPCGNLQYLAAGTVPVYHAYG 714

Db 512 LERLQHLERHFNKRGWGFVPMARHTAGADVLNMPSEBPCGLNQLYAAAYGTVP 571
Qy 715 VYHVAVGVRDTPPEPDPFNHSGIWTFDRAEAKHLI EALGHCLRTYRDYKESWRLQORG 774
Db 572 VYHVAV-----AGLWTFDRAEAKHLI EALRHCLDTRKYKESWRLQORG 616
Qy 775 MSQDSFMEHAUKYEDVYLKAKYQW 799
Db 617 MSQDSFMEHAUKYEDVYLKAKYQW 641

RESULT 3
US-10-389-566-797
; Sequence 797, Application US/10389566
; Publication No. US20040025202A1
; GENERAL INFORMATION:
; APPLICANT: Monsanto Technology, LLC
; APPLICANT: Laurie, Cathy C
; TITLE OF INVENTION: Nucleic Acid Molecules Associated with Oil in Plants
; FILE REFERENCE: 38-77(52900)D
; CURRENT FILING DATE: 2003-03-31
; PRIOR FILING DATE: 2002-03-15
; PRIOR APPLICATION NUMBER: US 60/391,786
; PRIOR FILING DATE: 2002-06-25
; PRIOR APPLICATION NUMBER: US 60/392,018
; NUMBER OF SEQ ID NOS: 2459
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 797
; LENGTH: 694
; TYPE: PR1
; ORGANISM: Oryza sativa
US-10-389-566-797

Query Match 55.7%; Score 2380.5; DB 16; Length 694;
Best Local Similarity 59.2%; Pred. No. 1e-178; Indels 121; Gaps 15;
Matches 478; Conservative 79; Mismatches 129; Indels 121; Gaps 15;

Qy 1 MSSAVAS---AASFLLASAPGSRARRAVSAPPH--AGAG-RLHMPMPPOSTARDG 54
Db 1 MSGAIASSPAATLFLAGSSSSSPR--RRSRVSGVMHLYGGLRLH--MERGLVRDG 56
Qy 55 GV--AARAGKQARVDDDAASARQPARRGAATKVAERDVPVTLDRDAAGAPAP 112
Db 57 AVVCSASAAAG---EDGVAKAK-----TKSA----- 79
Qy 113 APRODAARPPSMNGTPVNGENKSTGGGATKDSGLPAPAPAPHPSTQNRVPVNGENKANV 172
Db 80 -----GSSKAVAVAGST-----AKADHVE-----DS 100
Qy 173 ASPTSLAEVVAAPDAATISISDKAPESVVAPEKPPSSGSNFVVSASAPRLDIDSDVDP 232
Db 101 VSSPKYVPAVAKONGEYVS---RATKSDAPVSKPK-----VDPSPASKAAD--- 146
Qy 233 ELKKGAVIVEEAPNPKALSPAPAVQEDLMDFKKTYGFEPEVKAQDGMVAADAGSPFE 292
Db 147 -----GNAQAVESKALDKED-----VGVAEPLKAKADAGGAGAVSSAD 187
Qy 293 HHONHDSGPLAGENVVNVVVAACSPMCKTGGLGDAVAGALPVALARGGHVVVVPRYG 352
Db 188 DSEKESGFLAGPVMVNVIVVASCSPCKTGGLGDAVAGALPVALARGGHVVVVPRYG 247
Qy 353 DYBEAYDVGVRKTKYKAAQODMEVNYFHAAYTDGVDFTVDAPLFRHROEDTYGSGROELNK 412
Db 248 EYAEKADGVKRYKRVAGQDSVSYFHAFTDGVDFVLEAPPPRHRNDIYGGEREDVAK 307
Qy 413 RNLEFCRAVEMPMHVPVCGVPGVYDGNLVFLANDMHTALLPYLLKAYRDHGLMQYTRSI 472
Db 308 EMILFCRAVEMPMHVPVCGVPGVYDGNLVFLANDMHTALLPYLLKAYRNGLMQYTRSV 367
Qy 473 MVINIAHQGRPVDPPEPTELPHYLEHFRLYDPVGGEBANYPAAAGLKADQVYVVSFG 532

Db 368 LVINIAHQGRPVDPPEPTELPHYLEHFRLYDPVGGEBANYPAAAGLKADRAVYVTSHG 427
Qy 533 YLMEIKTVGSGWGLDITRONDMKTRGIVNGINNNENNPEVDVHLKSDGYTNFLGLTDS 592
Db 428 YLMEIKTVGSGWGLHIIINHDMKQIGIVNGIIMAEWNPEDDELQSGVANYTFEFLDT 487
Qy 593 GKQCKEALQRLGLQVADVPFLGFTIGLDQKQVEIILADMPYISQDVQVLMGTGR 652
Db 488 GKQCKEALQRLGLQVADVPFLGFTIGLDQKQVEIILADMPYISQDVQVLMGTGR 547
Qy 653 HDLESMLRPEREHHDKVAGWGFVRLAHRITAGADVLNMPSEBPCGLNQLYAAAYGT 712
Db 548 PDLEMLRPEREHHDKVAGWGFVRLAHRITAGADVLNMPSEBPCGLNQLYAAAYGT 607
Qy 713 VYVHVAVGVRDTPPEPDPFNHSGIWTFDRAEAKHLI EALGHCLRTYRDYKESWRLQOE 772
Db 608 VYVHVAVGVRDTPPEPDPFNHSGIWTFDRAEAKHLI EALGHCLRTYRDYKESWRLQOE 667
Qy 773 RGMQDSFMEHAUKYEDVYLKAKYQW 799
Db 668 RGMQDSFMEHAUKYEDVYLKAKYQW 694

RESULT 4
US-10-389-566-1213
; Sequence 1213, Application US/10389566
; Publication No. US20040025202A1
; GENERAL INFORMATION:
; APPLICANT: Monsanto Technology, LLC
; APPLICANT: Laurie, Cathy C
; TITLE OF INVENTION: Nucleic Acid Molecules Associated with Oil in Plants
; FILE REFERENCE: 38-77(52900)D
; CURRENT FILING DATE: 2003-03-31
; PRIOR FILING DATE: 2002-03-15
; PRIOR APPLICATION NUMBER: US 60/391,786
; PRIOR FILING DATE: 2002-06-25
; PRIOR APPLICATION NUMBER: US 60/392,018
; NUMBER OF SEQ ID NOS: 2459
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1213
; LENGTH: 694
; TYPE: PR1
; ORGANISM: Oryza sativa
US-10-389-566-1213

Query Match 55.3%; Score 2365.3; DB 16; Length 694;
Best Local Similarity 59.0%; Pred. No. 1.5e-177; Indels 121; Gaps 15;
Matches 476; Conservative 79; Mismatches 131; Indels 121; Gaps 15;

Qy 1 MSSAVAS---AASFLLASAPGSRARRAVSAPPH--AGAG-RLHMPMPPOSTARDG 54
Db 1 MSGAIASSPAATLFLAGSSSSSPR--RRSRVSGVMHLYGGLRLH--MERGLVRDG 56
Qy 55 GV--AARAGKQARVDDDAASARQPARRGAATKVAERDVPVTLDRDAAGAPAP 112
Db 57 AVVCSASAAAG---EDGVAKAK-----TKSA----- 79
Qy 113 APRODAARPPSMNGTPVNGENKSTGGGATKDSGLPAPAPAPHPSTQNRVPVNGENKANV 172
Db 80 -----GSSKAVAVAGST-----AKADHVE-----DS 100
Qy 173 ASPTSLAEVVAAPDAATISISDKAPESVVAPEKPPSSGSNFVVSASAPRLDIDSDVDP 232
Db 101 VSSPKYVPAVAKONGEYVS---RATKSDAPVSKPK-----VDPSPASKAAD--- 146
Qy 233 ELKKGAVIVEEAPNPKALSPAPAVQEDLMDFKKTYGFEPEVKAQDGMVAADAGSPFE 292
Db 147 -----GNAQAVESKALDKED-----VGVAEPLKAKADAGGAGAVSSAD 187


```

DB      80 VVVVPRSHYADQDDIGVWKRKYVDQDMVEVTFHSYIDGVFVFDSPFRHLDNTY 139
QY      404 GGSROZIMKRWILFCKAAVEVPMHVPCGGVYDGNLVPITANDMTALLPVYLKAYYRDH 463
DB      140 GGNREDILKRWILFCKAAAEVPMHVPCGGVYDGNLVPITANDMTALLPVYLKAYYRDH 199
QY      464 GLMGTYSIMVTHINIAHQGRGVDEFFTELPERHLEHFRILYDVGGEHANYFAAGLKAA 523
DB      200 GLMGTYSIMVTHINIAHQGRGVDEFFTELPERHLEHFRILYDVGGEHANYFAAGLKAA 259
QY      524 DQVVVSPGYLMELKTVGEGWGLHDIIRONDWKTGIVNGIDNMENNEPVVHLKSDGYT 583
DB      260 DRIVTSHGYAMEIKTSEGGWGLHGIINENDMKLRGIYNGIDTKDMNPKIDVHLKSDGYT 319
QY      584 NFSIETLDSGRKCKEALORELGQVADVPILGFTIGRLDGKQVEIITADMPWISODV 643
DB      320 NYTLETLDSGRKCKEALORELGQVADVPILGFTIGRLDGKQVEIITADMPWISODV 379
QY      644 QLVMLGTGRHDLSEMLRFEEREHDKYRGVGVSVRLAHRITAGADALLMSPRFEPCGLN 703
DB      380 QLVMLGTGRHDLSEMLRFEEREHDKYRGVGVSVRLAHRITAGADALLMSPRFEPCGLN 439
QY      704 QLYANAYGTVPVYHAGVGRDTPVPDPFNHSGLGWTFDRAEAKLTLEAGHCLRTYRDY 763
DB      440 QLYANAYGTVPVYHAGVGRDTPVPDPFNHSGLGWTFDRAEAKLTLEAGHCLRTYRDY 499
QY      764 KESWRGLQERGSODFSWEHAAKLYEDVLLKAKYQW 799
DB      500 KQSWEGLORRGWTDLSDWMDNAQOYEVEVLAAYKQW 535

```

RESULT 7

```

US-10-424-599-202586
/ Sequence 202586, Application US/10424599
/ Publication No. US20040031072A1
/ GENERAL INFORMATION:
/ APPLICANT: La Rosa Thomas J
/ APPLICANT: Kovalic David K
/ APPLICANT: Zhou Yihua
/ APPLICANT: Cao Yongwei
/ TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
/ TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
/ FILE REFERENCE: 38-21(53223)B
/ CURRENT APPLICATION NUMBER: US/10/424,599
/ CURRENT FILING DATE: 2003-04-28
/ NUMBER OF SEQ ID NOS: 285684
/ SEQ ID NO 202586
/ LENGTH: 771
/ TYPE: PRT
/ ORGANISM: Glycine max
/ FEATURE:
/ NAME/KEY: unsure
/ LOCATION: (1)..(771)
/ OTHER INFORMATION: unsure at all xaa locations
/ FEATURE:
/ OTHER INFORMATION: Clone ID: PAT_MRT1847_24960C.1.pcp
US-10-424-599-202586

```

```

Query Match      50.5% Score 2161.5 DB 12 Length 771
Best Local Similarity 74.8% Pred. No. 2,2e-161
Matches 386; Conservative 64; Mismatches 65; Indels 1; Gaps 1

```

```

QY      284 VADAGSFEHQNHDGSLAGENTWNVVVAASCPWCKTGGIGDVAAGALPKALARGHR 343
DB      257 VANEDGDNVE-SKGEHPPELAGANVNVILVAACAPFKVKGIGDVAAGSLPKALARGHR 315
QY      344 VVVVPRSHYADQDDIGVWKRKYVDQDMVEVTFHSYIDGVFVFDSPFRHLDNTY 403
DB      316 VVVVPRSHYADQDDIGVWKRKYVDQDMVEVTFHSYIDGVFVFDSPFRHLDNTY 375
QY      404 GGSROZIMKRWILFCKAAVEVPMHVPCGGVYDGNLVPITANDMTALLPVYLKAYYRDH 463

```

```

DB      376 GGNREDILKRWILFCKAAAEVPMHVPCGGVYDGNLVPITANDMTALLPVYLKAYYRDH 435
QY      464 GLMGTYSIMVTHINIAHQGRGVDEFFTELPERHLEHFRILYDVGGEHANYFAAGLKAA 523
DB      436 GLMGTYSIMVTHINIAHQGRGVDEFFTELPERHLEHFRILYDVGGEHANYFAAGLKAA 495
QY      524 DQVVVSPGYLMELKTVGEGWGLHDIIRONDWKTGIVNGIDNMENNEPVVHLKSDGYT 583
DB      496 DRIVTSHGYAMEIKTSEGGWGLHGIINENDMKLRGIYNGIDTKDMNPKIDVHLKSDGYT 555
QY      584 NFSIETLDSGRKCKEALORELGQVADVPILGFTIGRLDGKQVEIITADMPWISODV 643
DB      556 NYTLETLDSGRKCKEALORELGQVADVPILGFTIGRLDGKQVEIITADMPWISODV 615
QY      644 QLVMLGTGRHDLSEMLRFEEREHDKYRGVGVSVRLAHRITAGADALLMSPRFEPCGLN 703
DB      616 QLVMLGTGRHDLSEMLRFEEREHDKYRGVGVSVRLAHRITAGADALLMSPRFEPCGLN 675
QY      704 QLYANAYGTVPVYHAGVGRDTPVPDPFNHSGLGWTFDRAEAKLTLEAGHCLRTYRDY 763
DB      676 QLYANAYGTVPVYHAGVGRDTPVPDPFNHSGLGWTFDRAEAKLTLEAGHCLRTYRDY 735
QY      764 KESWRGLQERGSODFSWEHAAKLYEDVLLKAKYQW 799
DB      736 KQSWEGLORRGWTDLSDWMDNAQOYEVEVLAAYKQW 771

```

RESULT 8

```

US-10-284-668-8
/ Sequence 8, Application US/10284668
/ Publication No. US20030106100A1
/ GENERAL INFORMATION:
/ APPLICANT: Kossmann, Jens
/ APPLICANT: Springer, Franziska
/ APPLICANT: Abel, Gernot
/ TITLE OF INVENTION: DNA MOLECULES THAT CODE FOR ENZYMES
/ INVOLVED IN STARCH SYNTHESIS VECTORS BACTERIA TRANSGENIC
/ PLANT CELLS AND PLANTS CONTAINING SAID MOLECULES
/ NUMBER OF SEQUENCES: 17
/ CORRESPONDENCE ADDRESS:
/ ADDRESSER: FISH & NEAVE
/ STREET: 1251 Avenue of the Americas
/ CITY: New York
/ STATE: New York
/ COUNTRY: USA
/ ZIP: 10020
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: Patentin Release #1.0, Version #1.30
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/10/284,668
/ FILING DATE: 29-Oct-2002
/ CLASSIFICATION: <Unknown>
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US/08/836,567
/ FILING DATE: 24-JUL-1997
/ APPLICATION NUMBER: PCT/EP95/04415
/ FILING DATE: 09-NOV-1995
/ APPLICATION NUMBER: DE P 44 41 408.0
/ FILING DATE: 10-NOV-1994
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Haley Jr., James F.
/ REGISTRATION NUMBER: 27,794
/ REFERENCE/DOCKET NUMBER: Agrevo-4
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: 212-596-9000
/ TELEFAX: 212-596-9090
/ INFORMATION FOR SEQ ID NO: 8:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 767 amino acids
/ TYPE: amino acid

```

Mon Mar 22 09:26:54 2004

us-10-018-418-4.rapb

Page 6

TOPOLGY: linear
MOLECULE TYPE: Protein
SEQUENCE DESCRIPTION: SEQ ID NO: 8
US-10-284-668-8

Query Match 50.3%; Score 2150.5; DB 14; Length 767;
Best Local Similarity 54.3%; Pred. No. 1.66-160;
Matches 426; Conservative 104; Mismatches 188; Indels 67; Gaps 10;

34 HAGAGRLHPWPWPQRTKARDGVAAAPAAKDAVDDAASAPARRAGAAATKAAER 93
31 HGSSEQWRIKRVKATGNSGEAASADENDA-LQYTERKSKVLAQQDLQIAER 89
94 DFKTLDRDAA-----EGGAP-----PPAPQDAPPPSMNGTPVNGENKSTGGGA 141
90 KVSISIKSLANAKGTVDGSGSLSDVDIPVDKDVVTVPTAAFTVDKNT----- 144
142 TKDGLPAPAPAPHSSTONRYPVNGENKANYA---SPPTIAVVAAPDSAAITISDKAP 198
145 -----PPAISQDFVESKREIKRDLADERRAPLSRSITTA-SSQISTVSSKRT 191
199 ESVPAPKPPSPSGSNFVVASAPRLDID-----SDVEPELKGAIVVEAPNKPALSPPA 254
192 LN-VPETPKSQOETLDVNSKSLVDVPGKIQSYVPSLRKSSASHVQORNELEGSS 250
255 APNVEDLMDPKKTIQFEFEVEADDDGNAVDADGSEFHQNDGSGFAGENMMNVVVA 314
251 AEAHEET-----EDPVNT-----DEKPPPLAGTVMMLILVA 282
315 AECSPWCKTGGVAGALPKALAKRGHVVVVPRYGDYEAEAYDVGKYYAAQODME 374
283 SECAPMSKXGGLGDAVAGALPKALARGRHVVVAPRYDNYPEPDGSKRTIKYKGDVYE 342
375 VNYFAVYDGVDFVTDAPLFRHRCEDTYGSSROEIMKMLIFCKAVEVPMVPGGVP 434
343 VTFPAFTDGVDFIDSHMFRHIGNNYIGSNRYDILKRVNLFCKAIEVPMVPGGVC 402
435 YDGNLVFIANDMHTALLPVYLKAYYRDHGLMOYTRSIWYIHNIHQGRGPVDFEPTL 494
403 YDGNLVFIANDMHTALLPVYLKAYYRDHGLMOYTRSIWYIHNIHQGRGPVDFEPTL 462
495 PEHYLHFRILYDVPVGEHANYFAAGLKADQVNVVSGYIMELKTVEGCGGLDIIKOND 554
463 PPHVNDPFLYDVPVGEHANYFAAGLKADQVNVVSGYIMELKTVEGCGGLDIIKOND 522
555 WKTRGIVNGIDMNMENPEVDVHLKSDGYTNFSLGTLDSGRCKEALQRELGLQVADVP 614
523 WTLQGIIVNGIDTKENNPDLVHLQSDGYMNSLDTLQTKRCKEALQRELGLQVADVP 582
615 ILGFTGRIDGKGVETIADAMPWISODVOLVMTGTGRHDESLRHFEEHEDKRGVY 674
583 ILGFTGRIDGKGVETIADAMPWISODVOLVMTGTGRHDESLRHFEEHEDKRGVY 642
675 GFSVLAHRTTAGADALLMPSRFEPCGILNOLYAMAAGTVVVAHVGVDVTPPEPBNH 734
643 GFSVLAHRTTAGADALLMPSRFEPCGILNOLYAMAAGTVVVAHVGVDVTPPEPBNH 702
735 SGLGWTFRBAEAHKLIEALGHCLRTYRDYKESWGLQERGSODPSWEHAATKYEDVLK 794
703 SGLGWTFRBAEAHKLIEALGHCLRTYRDYKESWGLQERGSODPSWEHAATKYEDVLK 762
795 AKYOW 799
763 AKYOW 767

RESULT 9
US-10-272-291-7
Sequence 7, Application US/102722291
GENERAL INFORMATION:
APPLICANT: Exseed Genetics
TITLE OF INVENTION: Starch

FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/272,291
CURRENT FILING DATE: 2002-10-17
PRIOR APPLICATION NUMBER: 60/329,525
PRIOR FILING DATE: 2001-10-01
NUMBER OF SEQ ID NOS: 8
SOFTWARE: Patent In Ver. 2.1
SEQ ID NO 7
LENGTH: 477
TYPE: PRT
ORGANISM: Zea mays
FEATURE:
OTHER INFORMATION: Starch Synthesis IIb-2 (N-terminally truncated)
US-10-272-291-7

Query Match 48.4%; Score 2069.5; DB 14; Length 477;
Best Local Similarity 76.0%; Pred. No. 26-154;
Matches 374; Conservative 47; Mismatches 56; Indels 15; Gaps 1;

308 MNTVVVAACSPWCKTGGVAGALPKALARGRHVVVVPRYGDYEAEAYDVGKYYK 367
1 MNTVVVAACSPWCKTGGVAGALPKALARGRHVVVVPRYGDYEAEAYDVGKYYK 60
368 AAGQDMENYFAVYDGVDFVTDAPLFRHRCEDTYGSSROEIMKMLIFCKAVEVPM 427
61 VAGQDSVYTFHSHYIDGVDFVTDAPLFRHRCEDTYGSSROEIMKMLIFCKAVEVPM 120
428 VPCCGVYDGVDFVTDAPLFRHRCEDTYGSSROEIMKMLIFCKAVEVPM 487
121 APCCGVYDGVDFVTDAPLFRHRCEDTYGSSROEIMKMLIFCKAVEVPM 180
488 EFPTELPEHYLHFRILYDVPVGEHANYFAAGLKADQVNVVSGYIMELKTVEGCGGL 547
181 DFVNFDPFLYDVPVGEHANYFAAGLKADQVNVVSGYIMELKTVEGCGGL 240
548 DIINQNDMKTGIVNGIDMNMENPEVDVHLKSDGYTNFSLGTLDSGRCKEALQRELGL 607
241 DIINQNDMKTGIVNGIDMNMENPEVDVHLKSDGYTNFSLGTLDSGRCKEALQRELGL 289
608 QVRAADVPLTGFIRLDGKGVETIADAMPWISODVOLVMTGTGRHDESLRHFEEHED 667
290 -----DVPILGFTGRIDGKGVETIADAMPWISODVOLVMTGTGRHDESLRHFEEHED 345
668 DKTRGWTGSEVLAHRTTAGADALLMPSRFEPCGILNOLYAMAAGTVVVAHVGVDVTP 727
346 DKTRGWTGSEVLAHRTTAGADALLMPSRFEPCGILNOLYAMAAGTVVVAHVGVDVTP 405
728 PFDFPNHSGLGWTFDRAEAHKLIEALGHCLRTYRDYKESWGLQERGSODPSWEHAAT 787
406 PFDFPNHSGLGWTFDRAEAHKLIEALGHCLRTYRDYKESWGLQERGSODPSWEHAAT 465
788 YEDVLAKYOW 799
466 YEDVLAKYOW 477

RESULT 10
US-10-044-543-6
Sequence 6, Application US/10044543
Publication No. US20030135893A1
GENERAL INFORMATION:
APPLICANT: Zhou, Lan
TITLE OF INVENTION: Starch Synthesis IIb-2 (N-terminally truncated)
FILE REFERENCE: 1144D
CURRENT APPLICATION NUMBER: US/10/044,543
CURRENT FILING DATE: 2002-01-11
PRIOR APPLICATION NUMBER: 09/388,743
PRIOR FILING DATE: 1999-09-02
NUMBER OF SEQ ID NOS: 28
SOFTWARE: FastSeq for Windows Version 3.0

SEQ ID NO 6
LENGTH: 690
TYPE: PRT
ORGANISM: Curcuma zedoaria
US-10-044-543-6

Query Match 48.2%; Score 2063; DB 14; Length 690;
Best Local Similarity 56.0%; Pred. No. 1,1e-153;
Matches 404; Conservative 80; Mismatches 166; Indels 72; Gaps 9;

109 PAPPAP-----RODAAP-----PSNAGTPVNGENKSTGGGATDQSGT-----DAP 150
10 PAPPAPASCRLLHGARRPLHSPICMANPLTSTSFNAGLSFVKKSGKTLKHIDHGS 69
151 ARAP-----HSTORVAVNGENKAVASPTSTAEVADPSATISISPAESVVP 203
70 ARTREFINALYHGSADLVPIHNRKSSGAVGRSNIND-IOEDSNODVIDADSVAQTWE 128
204 AEKPPSSGSNFVVASAPRLDIDSVPELKKG-----AVIVEAPNPKALSPAPAA 257
129 QSKVLEMOENLLOQIIEKR-NSESEFESYVKKDEMLGYAAYVQTSNNGEAPP----- 183
258 VQEDJMPKXKIGEESEVEAKDQKAVADAGSFENHQNHDGSPLAGENVMVVAAC 317
184 -----EKG-----NLSPLLAGPVMNIIIVALEC 208
318 SPWCKTGGLDVGALPKALAKGRVWVVPYGDYEAVDVYAKYKAAAGDMEVY 377
209 APWCKTGGLDVGALPKALAKGRVWVVPYGDYEAVDVYAKYKAAAGDMEVY 268
378 FHAYIDVADVETIDAPFRHROEDYGGSGOELMKRMILFCRAVAVPVPVCGGVYCD 437
269 YHYIDSVDFVIFDPIFRHIGNDIYGKAVDILKRVLECKRAAEVPMHVEGQFCSD 328
438 GNLVFIANDMHTALLPYLKAYRDHGLMOYTRSIWVHNIAHQSGRPVDEPFTLEPER 497
329 GNLVFIANDMHTALLPYLKACFRDGLMYARCLVYHNIAHQSGRPVDEPFTLEPER 388
498 YLHFRVLYDPVGGHAYPAAGLKMADVVVSPGYLMEKTVGEGWGLDITRONDMT 557
389 HIDEFRLLDDPVGGHAYPAAGLKMADVVVSPGYLMEKTVGEGWGLDITRONDMT 448
558 RGIYNGIDNWEVVDVHLKSDGYTNFSLGTLDSGRCKEALQRELGLOVADVPILG 617
449 HGIVNGIDTSMNKEFLAHNSDGYTNFLETLEMGAQCKKALQREFGLPVADVPILA 508
618 FIGELDQKGVETIADAMPVVSODVQVNLGTGRHDLSEMLPHEFERHDDKVRGVGS 677
509 FIGELDQKGVETIADAMPVVSODVQVNLGTGRHDLSEMLPHEFERHDDKVRGVGS 568
678 VRLAHTTAGADALLMPSRPECGNLQVYAMAYGVVVAAGVADTVPPDPFNGSL 737
569 VKMAHRTTAGADALLMPSRPECGNLQVYAMAYGVVVAAGVADTVPPDPFNGSL 628
738 GWTEDRAEAHLLIALHCLRTYADYKESNRGIOEGMSODPSMEHAALYEDVYLKAY 797
629 GWTEDRAEAHLLIALHCLRTYADYKESNRGIOEGMSODPSMEHAALYEDVYLKAY 688
QY 798 QW 799
DB 689 QW 690

RESULT 11
US-10-284-668-6
Sequence 6, Application US/10284668
Publication No. US20030106100A1
GENERAL INFORMATION:
APPLICANT: Kossman, Jens
Springer, Franziska
Abel, Gernot
TITLE OF INVENTION: DNA MOLECULES THAT CODE FOR ENZYMES INVOLVED IN STARCH SYNTHESIS VECTORS BACTERIA TRANSGENIC.

PLANT CELLS AND PLANTS CONTAINING SAID MOLECULES

NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: FISH & NEAVE
STREET: 1251 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: USA
ZIP: 10020

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/284,668
FILING DATE: 29-Oct-2002
CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/08/836,567
FILING DATE: 24-JUL-1997
APPLICATION NUMBER: PCT/EP95/04415
FILING DATE: 09-NOV-1995
APPLICATION NUMBER: DE P 44 41 408.0
FILING DATE: 10-NOV-1994

ATTORNEY/AGENT INFORMATION:

NAME: Haley Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: Agrevo-4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-596-9000
TELEFAX: 212-596-9090

INFORMATION FOR SEQ ID NO: 6:

SEQUENCE CHARACTERISTICS:
LENGTH: 558 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-10-284-668-6

Query Match 48.2%; Score 2059; DB 14; Length 558;
Best Local Similarity 73.7%; Pred. No. 1,7e-153;
Matches 368; Conservative 62; Mismatches 69; Indels 0; Gaps 0;

QY 301 PLAGENTMNVVVAACSPFCKTGGLGVAGALPKALAKGRVWVVPYGDYEAVDV 360
DB 60 PLAGENTMNVVVAACSPFCKTGGLGVAGALPKALAKGRVWVVPYGDYEAVDV 119
QY 361 GVRKTYKAGQDMEVNYFHAVIDGVDFVTDAPFRHROEDYGGSGOELMKRMILFCRA 420
DB 120 GVRKTYKAGQDMEVNYFHAVIDGVDFVTDAPFRHROEDYGGSGOELMKRMILFCRA 179
QY 421 AVEVPMVPCGGVYCGNLVFIANDMHTALLPYLKAYRDHGLMOYTRSIWVHNIAH 480
DB 180 AVEVPMVPCGGVYCGNLVFIANDMHTALLPYLKAYRDHGLMOYTRSIWVHNIAH 239
QY 481 QGRGVDEPFTLEPERLHFRVLYDPVGGHAYPAAGLKMADVVVSPGYLMEKTV 540
DB 240 QGRGVDEPFTLEPERLHFRVLYDPVGGHAYPAAGLKMADVVVSPGYLMEKTV 299
QY 541 EGGWGLDITRONDMTKGIYNGIDNWEVVDVHLKSDGYTNFSLGTLDSGRCKEAL 600
DB 300 EGGWGLDITRONDMTKGIYNGIDNWEVVDVHLKSDGYTNFSLGTLDSGRCKEAL 359
QY 601 LQRELGLOVADVPILGIFGRLDQKGVETIADAMPVVSODVQVNLGTGRHDLSEMLR 660
DB 360 LQRELGLOVADVPILGIFGRLDQKGVETIADAMPVVSODVQVNLGTGRHDLSEMLR 419
QY 661 HFEREHDDKVRGVGSVLAHRTTAGADALLMPSRPECGNLQVYAMAYGVVVAAG 720
DB 420 HFEREHDDKVRGVGSVLAHRTTAGADALLMPSRPECGNLQVYAMAYGVVVAAG 479

QY 721 GVRDTPVPDPFNSGLGWTGTPDRAEAKHLEALGCHCLRTYRDYKESNRGLQERKSODPS 780
 DB 480 GURDTPVPDPFNSGLGWTGTPDRAEAKHLEALGCHCLRTYRDYKESNRGLQERKSODPS 539
 QY 781 MEHAKEVEDYLLAKTQW 799
 DB 540 WDNAQNEEVLIAKQW 558

RESULT 12

US-10-425-114-38552
 ; Sequence 38552, Application US/10425114
 ; Publication No. US20040034888A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Liu, Jindong
 ; APPLICANT: Zhou, Yinhua
 ; APPLICANT: Kovalic, David K.
 ; APPLICANT: Screen, Steven E
 ; APPLICANT: Tabaska, Jack E
 ; APPLICANT: Cao, Yongwei
 ; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
 ; FILE REFERENCE: 38-21(5313)B
 ; CURRENT APPLICATION NUMBER: US/10/425,114
 ; CURRENT FILING DATE: 2003-04-28
 ; NUMBER OF SEQ ID NOS: 73128
 ; SEQ ID NO 38552
 ; LENGTH: 440
 ; TYPE: PRT
 ; ORGANISM: Zea mays
 ; FEATURE:
 ; OTHER INFORMATION: Clone ID: 700100789_F11.pcp
 US-10-425-114-38552

Query Match 45.2%; Score 1933; DB 12; Length 440;
 Best Local Similarity 79.1%; Pred. No. 1e-143;
 Matches 348; Conservative 40; Mismatches 52; Indels 0; Gaps 0;
 QY 360 VGVKRYKXAGQDMENVYFHAIDVDVFIADAPLFRHROEDYGSROEIMKMLIFCK 419
 DB 1 LGVRKRYKXAGQDMENVYFHAIDVDVFIADAPLFRHROEDYGSROEIMKMLIFCK 60
 QY 420 AAVEVPMVPCGGVYVGNLVFIANDWHTALLPYLKAYRBDGLMOTRSIMVHNIA 479
 DB 61 AAVEVPMVPCGGVYVGNLVFIANDWHTALLPYLKAYRBDGLMOTRSIMVHNIA 120
 QY 480 HGGRGVDEFFPTEPEHYLHEFRLYDVGGEHANYFAAGLMDQVAVVSPGLWELKT 539
 DB 121 HGGRGVDEFFPTEPEHYLHEFRLYDVGGEHANYFAAGLMDQVAVVSPGLWELKT 180
 QY 540 VGGGNGHDIIRONDMKRGIVNGIDNMENRPEVDVHLKSDGYNPSLGLDCKQCKE 559
 DB 181 VGGGNGHDIIRONDMKRGIVNGIDNMENRPEVDVHLKSDGYNPSLGLDCKQCKE 240
 QY 600 ALQRELGQVRAVDFLIGRLDQKVEIADAMPVIVSODVOLVLTGTRHDESM 659
 DB 241 ALQRELGQVRAVDFLIGRLDQKVEIADAMPVIVSODVOLVLTGTRHDESM 300
 QY 660 RHREPHHDKXGNGVFSRLAHTTAGADLIMSPREPGNOLVAMVGVVPHAV 719
 DB 301 RHREPHHDKXGNGVFSRLAHTTAGADLIMSPREPGNOLVAMVGVVPHAV 360
 QY 720 GGVADTVPPDPFNSGLGWTGTPDRAEAKHLEALGCHCLRTYRDYKESNRGLQERKSODF 779
 DB 361 GGVADTVPPDPFNSGLGWTGTPDRAEAKHLEALGCHCLRTYRDYKESNRGLQERKSODF 420
 QY 780 MEHAKEVEDYLLAKTQW 799
 DB 421 MEHAKEVEDYLLAKTQW 440

RESULT 13
 US-10-425-114-58577

; Sequence 58577, Application US/10425114
 ; Publication No. US20040034888A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Liu, Jindong
 ; APPLICANT: Zhou, Yinhua
 ; APPLICANT: Kovalic, David K.
 ; APPLICANT: Screen, Steven E
 ; APPLICANT: Tabaska, Jack E
 ; APPLICANT: Cao, Yongwei
 ; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
 ; FILE REFERENCE: 38-21(5313)B
 ; CURRENT APPLICATION NUMBER: US/10/425,114
 ; CURRENT FILING DATE: 2003-04-28
 ; NUMBER OF SEQ ID NOS: 73128
 ; SEQ ID NO 58577
 ; LENGTH: 341
 ; TYPE: PRT
 ; ORGANISM: Zea mays
 ; FEATURE:
 ; OTHER INFORMATION: Clone ID: UC-ZMFLB73257H05_F11.pcp
 US-10-425-114-58577

Query Match 32.1%; Score 1374; DB 12; Length 341;
 Best Local Similarity 69.8%; Pred. No. 8.4e-100;
 Matches 238; Conservative 51; Mismatches 52; Indels 0; Gaps 0;
 QY 459 YTRDGLMOTRSIMVHNIAHGGRGVDEFFPTEPEHYLHEFRLYDVGGEHANYFA 518
 DB 1 YTRDGLMOTRSIMVHNIAHGGRGVDEFFPTEPEHYLHEFRLYDVGGEHANYFA 60
 QY 519 GLKADQVAVVSPGLWELKTVEGGGLDIIIRONDMKRGIVNGIDNMENRPEVDVHLK 578
 DB 61 GLKADQVAVVSPGLWELKTVEGGGLDIIIRONDMKRGIVNGIDNMENRPEVDVHLK 120
 QY 579 SDGTNPSLGLDCKQCKEALQRELGQVRAVDFLIGRLDQKVEIADAMPV 638
 DB 121 SDGTNPSLGLDCKQCKEALQRELGQVRAVDFLIGRLDQKVEIADAMPV 180
 QY 639 VSQDVQVLMGTGRHDESMRHREPHHDKXGNGVFSRLAHTTAGADLIMSPRE 698
 DB 181 VSQDVQVLMGTGRHDESMRHREPHHDKXGNGVFSRLAHTTAGADLIMSPRE 240
 QY 759 TYRDKESNRGLQERKSODFMEHAKEVEDYLLAKTQW 799
 DB 301 TYRDKESNRGLQERKSODFMEHAKEVEDYLLAKTQW 341

RESULT 14
 US-10-284-668-10
 ; Sequence 10, Application US/10284668
 ; Publication No. US20030106100A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Kossman, Jens
 ; APPLICANT: Springer, Franziska
 ; APPLICANT: Abel, Gernot
 ; TITLE OF INVENTION: DNA MOLECULES THAT CODE FOR ENZYMES
 ; INVOLVED IN STARCH SYNTHESIS VECTORS BACTERIA TRANSGENIC
 ; PLANT CELLS AND PLANTS CONTAINING SAID MOLECULES
 ; NUMBER OF SEQUENCES: 17
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESS: FISH & NEAVE
 ; STREET: 1251 Avenue of the Americas
 ; CITY: New York
 ; STATE: New York
 ; COUNTRY: USA
 ; ZIP: 10020
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk

Mon Mar 22 09:26:54 2004

us-10-018-418-4.rapb

Page 10

```

Qy 480 HOORGVDEPFFPELEBENTL-----EHPFLYPOVSGEHAFFAAGLKXADOVVVP 513
Db 233 HOGVEPASTYFDLGLPPEMYGALENYFPEMKARRHLDGGEAVNPLKAVVYADRIYVSG 292
Qy 532 GTLMELKTYEGWGLHDITRONDKTRGIVNGINDKMNPEVDYHLKSDGYTNSLGLTD 551
Db 293 GYSEVETVTAAGGGGLNELLSRSKSVLNGVINDINDMNPFTDKCLPH---HFSVDDL- 347
Qy 592 SGKROCKEALORELGLQVADVPYLLGFIIRLDGOGKVEIADAMPWITYSOQVQLVMLGTG 651
Db 348 SGKXKCAEALQXELGLPVREDVPYLLGFIIRLDYOGKIDILKALPEILMRBDEQVWMLGSG 407
Qy 652 RHDESLMLYFEEBHHDKYRGWGVSEVRLAHRITTAGADALMPSPEBCGJNOLYMAVG 711
Db 408 DPTEGMMKRTSESSYDKQFRGWSGVPSYSHLITIGCDILMPSFBCGJNOLYMAVG 467
Qy 712 TVPVYHAHVGVADVPYDFDFP--NHSGLGTFDDBRAHKLIEALGHCIRTYDYKESMR 768
Db 468 TVPVYHGTGILARTVETVFNFPAKGBEGGMAFSLVDYKMLMALRTAMSTFBEHKPSWE 527
Qy 769 GLOERKSGDSFSENEHA 784
Db 528 GLMKGKGTIKDHTWDHA 543

```

Search completed: March 17, 2004, 19:37:08
Job time : 47 secs